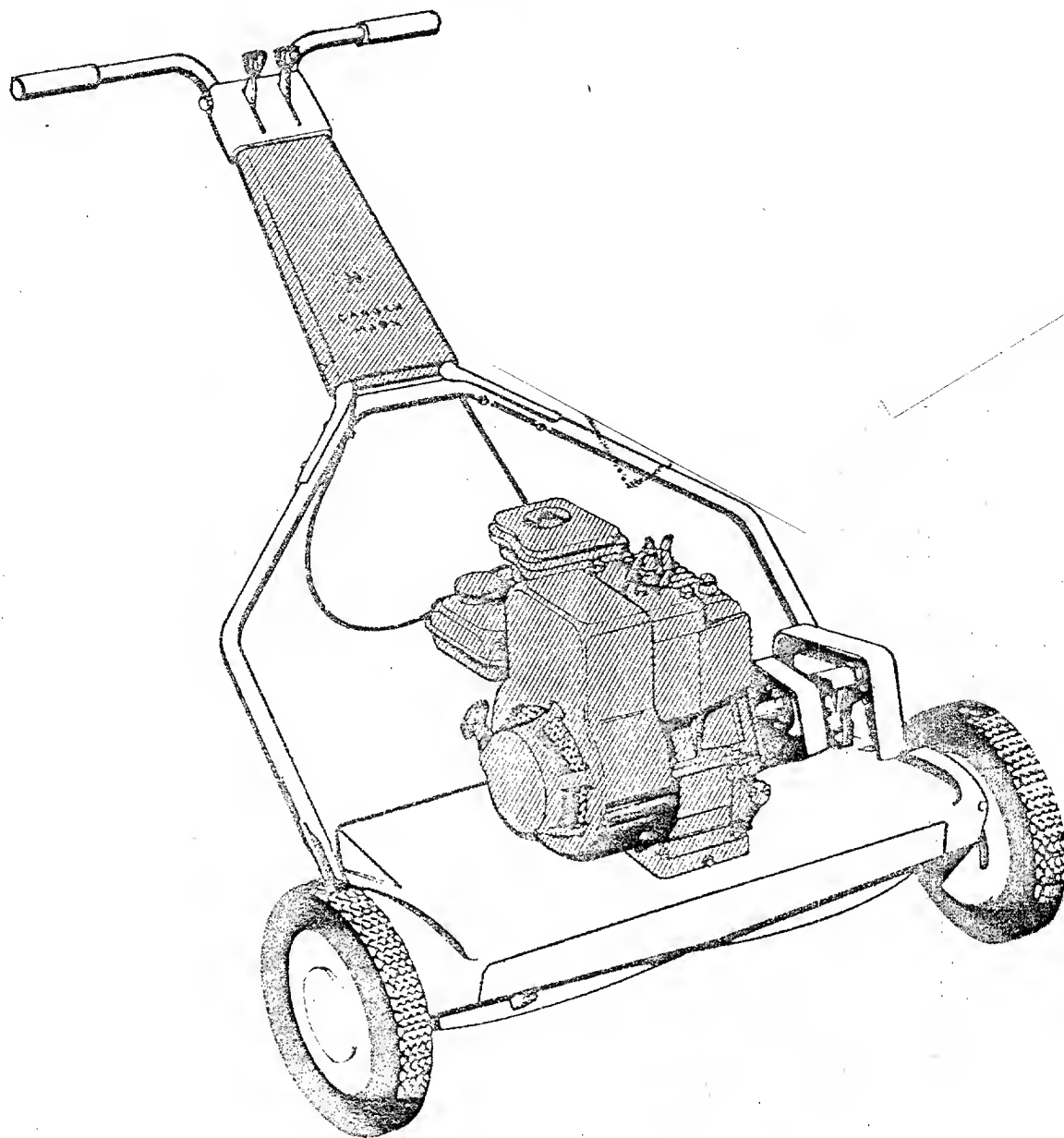


EIGHTEEN INCH REEL LAWN MOWER

1815-1
EIGHTEEN-INCH
REEL LAWN MOWER
MODEL ZYJ-193A

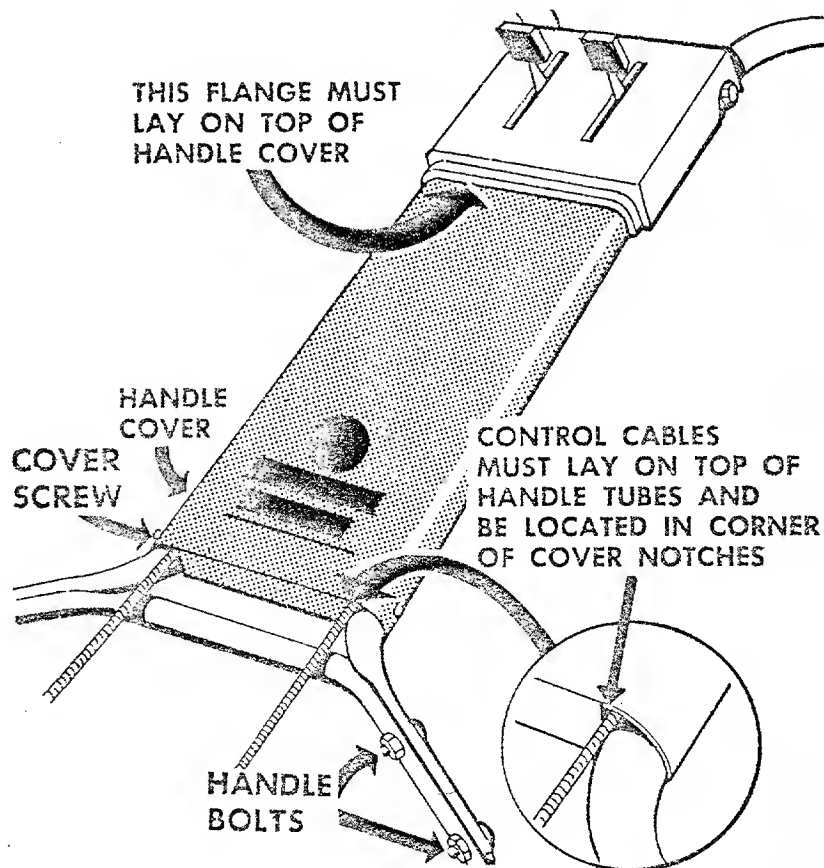
WARD'S
GARDEN MARK

owner's



—SOLD EXCLUSIVELY BY MONTGOMERY WARD

ASSEMBLY INSTRUCTIONS



IMPORTANT

1. Insert ends of lower handle section through slots in deck and over handle studs. (Left side first.)
2. Remove throttle control assembly from cardboard wrapper and lay control cables over top of lower handle section as shown. DO NOT KINK CABLE.
3. Position upper handle section as shown, and loosely assemble to lower section.
4. Position control assembly on upper handle section as shown with control cover flange on top of handle cover. Bolt securely to handle.
5. Loosen the two cover retaining screws and position control cables between handle and cover as shown. PULL CABLES TIGHT TO ELIMINATE CABLE SLACK UNDER COVER. Tighten cover screws and handle bolts securely.

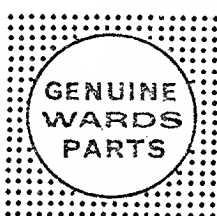
HOW TO OBTAIN SERVICE



The merchandise you have purchased from us has been carefully engineered and manufactured under Wards rigid quality standards and should give you satisfactory and dependable operation. However, like all mechanical merchandise, it may occasionally require adjustment or maintenance. Should you ever need technical assistance, please contact or write your nearest Wards retail store, catalog store, or mail order house. Provide the following:

1. Model, serial number and all data shown on the model plate. When ordering parts for engine, also furnish all the information which appears on the engine model plate.
2. The date and the Wards branch from which you purchased your lawn mower.
3. State briefly the trouble you are having.

HOW TO OBTAIN REPLACEMENT PARTS



Repair parts may be obtained from your Wards Retail Store, Catalog Store, or Mail Order House and will be made available at current prices. If requested, prices will be quoted in advance. NOTE: Many of the nuts, bolts, etc., listed in the parts list of this manual are standard hardware parts and are indicated with an asterisk(*). These parts may be purchased locally for your convenience and for faster service. Check the Hardware Department of your local store.

When requesting repair parts, be sure to give the model and serial number which is shown on the model plate. Also give the part number and the name of the part as shown in the repair parts listing. In addition, when ordering parts for your gasoline engine, also furnish the information which appears on the engine model plate. If you order by mail, you will pay the transportation charges from the shipping point.

WARRANTY

For a period of one year from date of sale, we will, when brought to any of our locations, repair or replace without charge any parts which Wards examination shall disclose to be defective in material or workmanship. This warranty does not cover adjustments to ignition parts or carburetors, spark plugs, sharpening, adjustments made necessary through normal operation or any failures resulting from improper care, abuse, accidental damage or failure to lubricate properly. Our obligations under this warranty are in lieu of all other warranties or guarantees expressed or implied.

BEFORE STARTING ENGINE

1. (Fig. 1) Remove oil fill plug. Place mower level and fill engine crankcase to top of oil fill plug with S.A.E. No. 30 oil. Tilt mower to make sure oil flows completely into crankcase. Replace fill plug and tighten.

2. Air cleaner protects engine from grit and dirt.

CAUTION—AN EXTREMELY DIRTY AIR CLEANER ELEMENT MAY CAUSE ENGINE TO STALL. SEE ENGINE INSTRUCTION MANUAL FOR PROPER AIR CLEANER MAINTENANCE.

3. Fill tank with good grade regular, clean, fresh gasoline. DO NOT MIX OIL with gasoline.

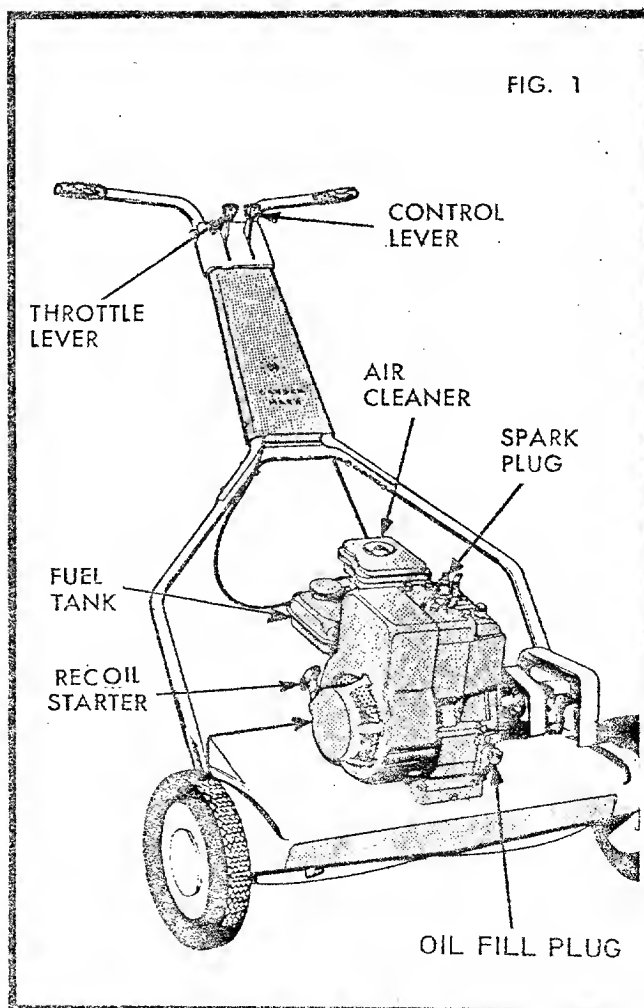
FOR COMPLETE ENGINE INFORMATION READ ENGINE INSTRUCTION BOOKLET FURNISHED WITH YOUR MOWER BEFORE STARTING OR OPERATING.

TO START ENGINE

1. Set control lever in "Manual," with handle in down position.
2. Set throttle lever in start position.
3. Pull starter rope with quick full stroke once. Move throttle lever to "FAST" position. Pull starter rope again.
4. When engine starts, move throttle lever to "SLOW" position until engine warms up. Regulate engine speed with hand lever from "SLOW" to "FAST."

OPERATING CONTROLS

1. For mowing small areas, move control to "EASE-O-MATIC" position and lift handle to propel mower. For mowing large areas, move control to "MANUAL" position. (Fig. 2)—CAUTION—"MANUAL" posi-



tion is direct and mower will propel when engine is running.

2. Throttle lever regulates START, FAST, SLOW and STOP.

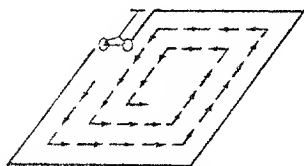
OPERATING AND LAWN MOWING HINTS

1. For close trimming around flower beds, along walks and walls, set the handle control lever to Manual position. Trim by tilting the mower back on roller to stop.
2. Don't cut your grass too short. The best height is 1½

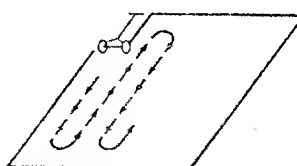
to 2 inches. See instructions for cutting height adjustment.

3. Your Power Reel mower is easy to transport. Push down on handle, tilt mower on rollers and push your mower. The blades will be raised for passing over rocks, curbs, etc.

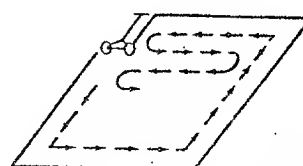
USE A SYSTEM
WHEN YOU MOW



This way gets the edges—
it's real fast and it's real
work!



A pause at each end is
more restful, but it misses
the edges.



COMBINE FOR
BEST RESULTS.

TO CHANGE WHEELS FROM HIGH TO LOW CUT

1. Loosen axle nuts on inside of end plates and move axle up to desired position (Fig. 2). Be sure both wheels are located in same relative position and tighten axle nuts securely. IMPORTANT axle nut shoulders must be properly seated in notches.

TO ADJUST ROLLER

Loosen roller bracket nuts and move roller up or down to attain desired height of cut and level chassis.

TO TIGHTEN CUTTER BAR ADJUSTMENT

1. Loosen lower adjusting nut (A) and tighten upper adjusting nut (B) until reel contacts cutter bar lightly (Fig. 3). Adjustment may also be determined by inserting strip of newspaper between reel and cutting bar. Reel should cut the paper when turned backwards slowly. Tighten nuts (A) and (B) securely.
2. IMPORTANT Cutter bar pivot bolts (C) must be tight after adjustment. Right hand pivot bolt on right hand side of mower must be turned counter-clockwise. Left hand pivot bolt must be turned clockwise to tighten.

TO ADJUST CHAIN DRIVE

1. (Fig. 4) Set hand control lever in "Ease-O-Matic" and handle in stand-up position.
2. Loosen 4 engine mount bolts and pull engine back.
3. Loosen 4 control assembly bolts and move spacer plate under control assembly.
4. Pull the control assembly back to tighten chain. Allow $\frac{1}{8}$ inch slack in chain. Tighten 3 control assembly bolts.

TO ADJUST BELT DRIVE

1. Check procedures TO ADJUST CHAIN DRIVE.
2. Be sure engine mount bolts are loose.
3. Handle must be in stand-up position and hand control lever in "Ease-O-Matic" position.
4. With strip of paper between jackshaft and actuator roller, hold control assembly down against spacer plate—then move engine forward until paper is just free. Retighten engine mount bolts.
5. Move spacer plate from under control assembly. Tighten spacer plate nut.

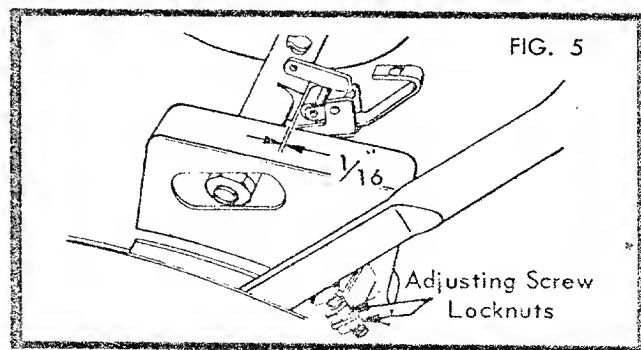
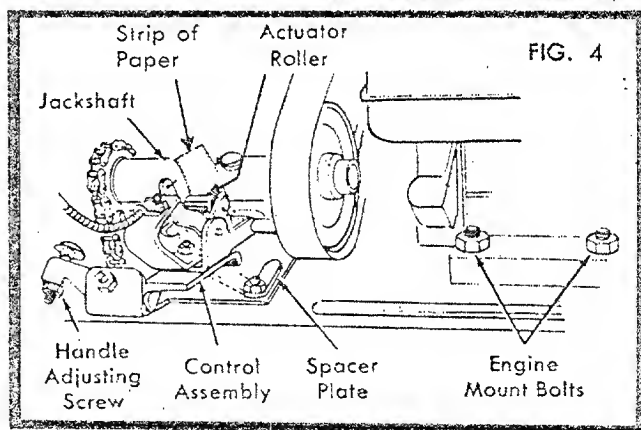
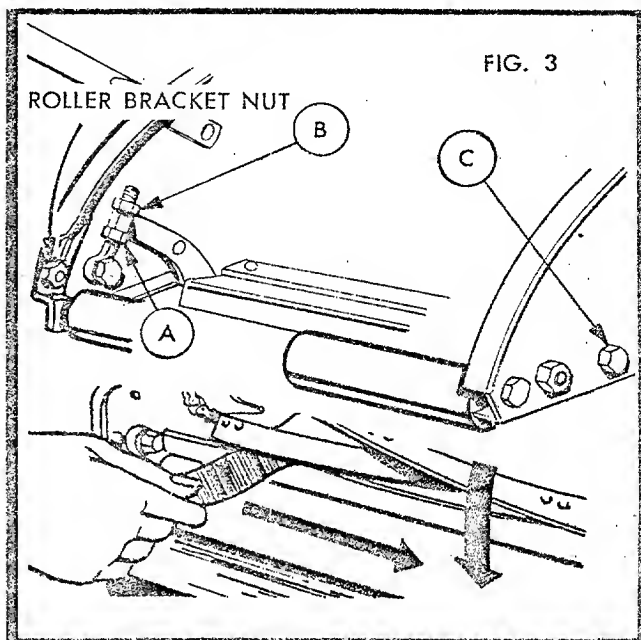
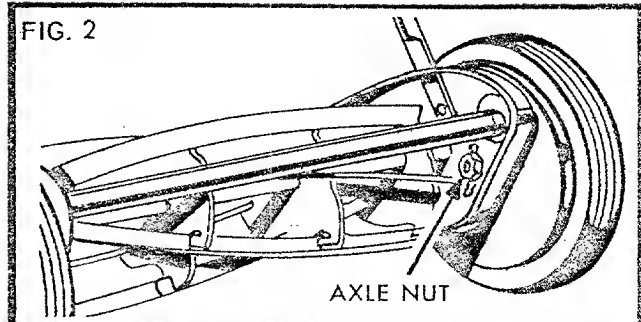
TO ADJUST SELF-PROPELLED ACTION

1. Place hand lever in MANUAL position.
2. Lower handle to operating position.
3. Loosen adjusting screw locknuts. (Fig. 5)
4. With handle down adjust screw so that Actuator Roller has $\frac{1}{16}$ inch clearance between roller and jackshaft.
5. Retighten adjusting screw lock nut.

LUBRICATION

1. Change engine oil (crankcase) after first 5 hours of operating. See engine operating instructions.
2. Check air cleaner frequently.
3. Reel bearings require no attention until mower is serviced.
4. Check jackshaft oil cup frequently, oil at beginning of mowing season and as needed. Oil roller shaft once or twice a year or as needed.

To insure continued easy operation of controls, oil outside of exposed cables for full length with engine oil as required.



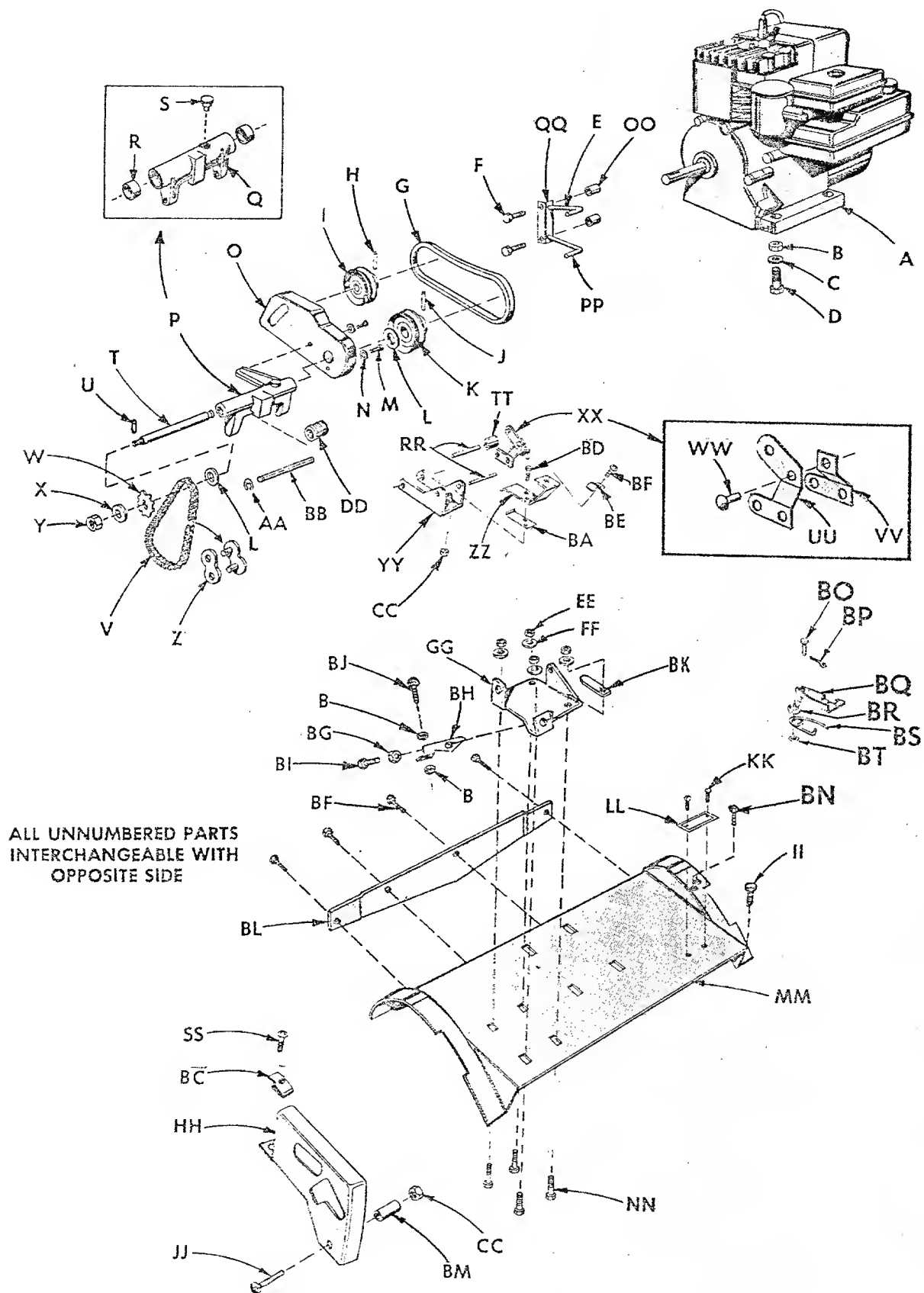
PARTS LIST

MODEL — ZYJ — 193A

Your Mower is right hand (R.H.) or left hand (L.H.) as you push.

REF. LTR.	PART NO.	NAME OF PART	REF. LTR.	PART NO.	NAME OF PART
A	2132-42-39	Engine Bracket.....	CC	1540-59	Washer.....
B	3712-23-01	Handle Lower.....	DD	1624-73	Spacer.....
C	1538-8	*Nut (1/4-20 Lock).....	EE	2632-90	Roller Shaft.....
D	1529-15	*Bolt (1/4-20 x 3/8 Carr.).....	FF	2609-194-39	Bracket—L.H.....
E	1609-199	Bracket.....	GG	877	*Nut 3/8-24 Hex. Lock "Gripco".....
F	1509-90	*Bolt (1/4-20 x 1 1/4 Hex Hd).....	HH	1118-17-39	Gear Housing.....
G	4712-30-01	Handle Upper.....	II	3636-15	Wheel.....
H	1509-89	*Bolt (5/16-18 x 4 1/4).....	JJ	1137-3	Nut—Special.....
I	1538-6	*Nut (5/16-18 Hex Lock.....	KK	453	Screw—Special.....
J	1511-12	Screw (No. 10-32 x 3/8).....	LL	1631-27	Axle.....
K	1710-19	Handle Grip.....	MM	1540-31	Washer.....
L	1112-22-39	Spacer Tube.....	NN	1650-22	Retaining Ring.....
M	1530-19	*Rivet (3/16 x 9/32).....	OO	2619-32	Tire.....
N	1129-193L-39	End Plate—L.H.....	PP	2674-23-41	Hub Cap.....
O	3135-29-39	Reel Assy.....	QQ	1507-3	Screw (10-32).....
P	1129-194R-39	End Plate—R.H.....	RR	116	*Nut (10-32 square).....
Q	1652-51	Bearing.....	SS	117	*Screw (10-32 x 7/16).....
R	1540-22	Washer.....	TT	1552-7	Wave Washer.....
S	1650-24	Retaining Ring.....	UU	1616-113	Label.....
T	323	Pawl.....	VV	455	Screw—Special.....
U	1635-29	Pinion—R.H.....	WW	3142-47	Throttle Control.....
V	1531-11	*Rivet (3/16 x 1/2 Solid).....	XX	4500-211	Handle Cover.....
W	2604-24	Blade.....	YY	1509-86	Screw (3/8-24—L.H. thd.).....
X	2134-19-39	Cutter Bar with blade.....	BA	1509-37	*Bolt (5/16-18 x 3/8).....
Y	451	Bolt.....	BC	1539-33	Nut (5/16-18 Special).....
Z	52	*Nut (3/8-24 hex).....	BD	2609-195-39	Bracket—R.H.....
AA	1635-30	Pinion—L.H.....	BE	2121-12	Sprocket.....
BB	1658-15	Roller.....	BF	1548-5	Rollpin.....

*Standard Hardware Item—May Be Purchased Locally

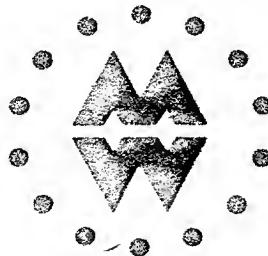


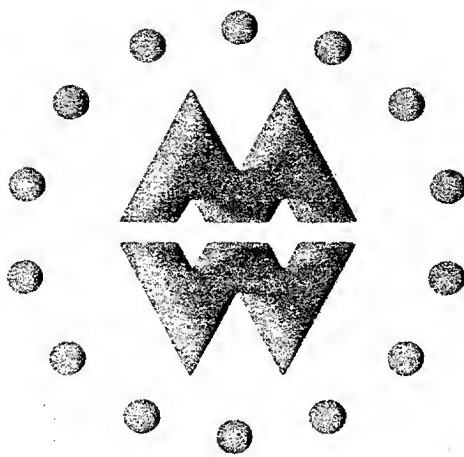
PARTS LIST MODEL — ZYJ — 193A

REF. LTR.	PART NO.	NAME OF PART	REF. LTR.	PART NO.	NAME OF PART
A		Powr-Kraft Engine Model	JJ	1501-20	Screw (10-32 x 1 3/4 Sems)
		60102 Type.0138-01	KK	1020	Screw (6 x 1/4 Self tap)
B	70	*Nut (5/16 Hex)	LL	1605-281	Name Plate
C	1025	*Lockwasher (5/16)	MM	3153-22-41	Deck
D	1529-11	*Bolt (5/16-18 x 1 3/8 Carriage)	NN	1529-15	Bolt (1/4-20 x 5/8)
E	1724-7	Keeper-Belt Upper	OO	1624-69	Spacer
F	1509-69	*Screw (1/4-20 x 1 3/4 Fillister Hd.)	PP	1724-9	Lower Belt Keeper
G	1651-20	"V" Belt	QQ	1606-48	Belt Keeper Bracket
H	1508-13	Set Screw (5/16-24 x 7/32 Self Lock)	RR	1548-13	Rollpin
I	1626-40-39	Pulley	SS	1522-3	*Bolt (No. 10 sht. mtl.)
J	1548-11	Rollpin	TT	1658-8	Roller
K	2120-34-39	Pulley Assembly	UU	1705-17	Roller Lever—L.H.
L	1540-17	*Washer (5/8 x 15/16)	VV	1705-10	Roller Lever—R.H.
M	1511-9	*Screw (10-32 x 1/2 Sems. Ph. Hd. Thd.) (Cutting)	WW	9	Rivet
N	1540-55	Washer	XX	1155-15-41	Roller Lever Assembly
O	2639-30-39	Belt Guard	YY	1609-83-41	Bracket
P	2102-20-41	Jackshaft Housing, Bearings & Oiler Assembly	ZZ	2609-180-41	Control Bracket
Q	3601-64-41	Jackshaft Housing	BA	2642-52-41	Spring
R	1652-1	Bearing	BC	1539-7	Nut "U" Type
S	1691-2	Oiler	BD	41-054	Screw (10-32 x 9/16 Rd. Hd. Sems)
T	1632-26	Jackshaft	BE	1694-10	Clamp
U	1546-2	Pin	BF	1117	Screw (10-32 x 3/8 Ph. Rd. Hd. Thd. Cutting Sems)
V	1654-2	Chain	BG	41-028	Nut (5/16-18 Hex. Lock Gripco)
W	1638-16	Sprocket	BH	2705-6	Lever
X	1036	Washer	BI	1513-18	Bolt (5/16-24 Hex. Shoulder Bolt)
Y	1538-16	Nut (7/16-20 Hex Jam Lock Gripco)	BJ	1513-23	Bolt (5/16-18 x 1 3/8 Step)
Z	1113-13	Connector Link	BK	1624-50	Spacer
AA	1650-10	Retaining Ring	BL	4699-41-39	Grill
BB	1547-3	Pin	BM	1624-117	Spacer
CC	1534-8	Nut (10-32 Gripco)	BN	1513-41	Bolt (5/16-24 x 3/4 Sems)
DD	1642-30-41	Spring	BO	1545-23	Clevis Pin
EE	67	Nut (1/4-20 Hex)	BP	1547-4	*Cotter Pin (1/16 x 1/2)
FF	1018	Lockwasher	BQ	2627-21	Handle Latch
GG	3609-82-41	Bracket	BR	1624-122	Spacer
HH	3639-42-41	Guard	BS	2642-51	Spring
II	1513-8	Bolt (5/16-24 x 1/2 Sems)	BT	1097	*Washer (3/16 x 1/2)

10 RULES FOR SAFE OPERATION

1. Do not attempt to clean, adjust or repair machine while engine is running.
2. Disconnect the wire from the spark plug before working on machine to prevent accidental starting.
3. Keep hands, feet and loose clothing clear of all moving parts. Do not attempt to remove wire, branches or objects lodged in the blade while engine is running or while wire is attached to spark plug.
4. Remove loose objects from area before each mowing. Avoid striking rocks, or roots, or other objects. Loose objects or chips from objects, if struck by the mower blade, may be thrown, causing injury to operator, bystander, property, or to the mower itself.
5. Never leave machine running unattended. Do not permit machine to be operated by persons not acquainted with its use, and the rules for safe operation.
6. Do not run engine indoors, exhaust gases contain carbon monoxide which is odorless and is a deadly poison. If for some reason the engine is run indoors, open all doors and windows to provide sufficient ventilation.
7. When mowing a terrace, slope or incline, mow lengthwise. Do not mow up and down.
8. Disengage self propelling unit or drive clutch on units so equipped before starting.
9. Do not fill gasoline tank when engine is running or while engine is hot. Wipe off any spilled gasoline before starting engine. Gasoline is highly flammable, always handle with care.
10. If your mower is equipped with a ratchet type self starter, be sure and read the handling and safety precautions in the engine manual furnished with this mower.





Garden Mark — *EXCLUSIVE WITH MONTGOMERY WARD*